Abstract

The present invention provides a novel method for treating leukemia and more particularly acute myelogenous leukemia (AML) in a host comprising administering to the host a therapeutically effective amount of a compound having the formula I:

wherein B is cytosine or 5-fluorocytosine and R is selected from the group comprising H, monophosphate, diphosphate, triphosphate, carbonyl substituted with a C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{3-6} aryl, and

wherein each Rc is independently selected from the group comprising H, C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl and an hydroxy protecting group; and wherein said compound is substantially in the form of the (-) enantiomer.